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United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



May 17, 2006

FAXOGRAM: Water Order Change

To: Chief, Power Supply and Billing Division, WAPA, Watertown, South Dakota
Attention: F-6001
Chief, Power Dispatching Branch, WAPA, Loveland, Colorado
Attention: J-4120
Facilities Manager, Hardin, Montana
Attention: MT-300: Tom Tauscher
Project Manager, Mills, Wyoming
Attention: WY-4000, WY-4100, WY-6400
Assistant Superintendent, National Park Service, Lovell, Wyoming
Attention: Jim Staebler

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 06-15**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3603.33; Storage: 763,270 acre-feet; River Release: 2,500 cfs; Inflow: 2,160 cfs;

GENERAL COMMENTS:

The BIA has requested further increases in irrigation deliveries to the Bighorn Canal. As a result, the following operation changes are required at Yellowtail Dam and Powerplant.

NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. To provide a more desirable mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels at safe limits, the minimum Afterbay elevation should be maintained at or above elevation 3183 whenever possible. This is only a soft limit and may be deviated from during special or emergency operations.

TURBINE RELEASES:

At 0800 hour on Wednesday, May 17, 2006:

Increase average daily turbine release to 2,580 cfs ($\approx 1,695$ MW-Hrs/day using 36.5 cfs/mw)..

At 0800 hour on Thursday, May 18, 2006:

Increase average daily turbine release to 2,630 cfs ($\approx 1,730$ MW-Hrs/day using 36.5 cfs/mw)..

At 1600 hour on Thursday, May 18, 2006:

Increase average daily turbine release to 2,680 cfs ($\approx 1,760$ MW-Hrs/day using 36.5 cfs/mw)..

At 0800 hour on Friday, May 19, 2006:

Increase average daily turbine release to 2,730 cfs ($\approx 1,795$ MW-Hrs/day using 36.5 cfs/mw)..

AFTERBAY RELEASE AND OPERATION:

At 0800 hour on Wednesday, May 17, 2006:

Increase diversions to the Bighorn Canal to 150 cfs (gage height = 71.71 with 0.0 shift).

Maintain river release at 2,500 cfs (gage height = 60.49 with a shift of -0.49).

Increase total release from the Afterbay to 2,650 cfs.

At 0800 hour on Thursday, May 18, 2006:

Increase diversions to the Bighorn Canal to 200 cfs (gage height = 72.21 with 0.0 shift).

Maintain river release at 2,500 cfs (gage height = 60.49 with a shift of -0.49).

Increase total release from the Afterbay to 2,700 cfs.

At 1600 hour on Thursday, May 18, 2006:

Increase diversions to the Bighorn Canal to 250 cfs (gage height = 72.67 with 0.0 shift).

Maintain river release at 2,500 cfs (gage height = 60.49 with a shift of -0.49).

Increase total release from the Afterbay to 2,750 cfs.

At 0800 hour on Friday, May 19, 2006:

Increase diversions to the Bighorn Canal to 300 cfs (gage height = 73.07 with 0.0 shift).

Maintain river release at 2,500 cfs (gage height = 60.49 with a shift of -0.49).

Increase total release from the Afterbay to 2,800 cfs.

/S/ Tim H. Felchle